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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,893	03/30/2001	David A. Brown	BROWN 3-3-4-8	8920

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EXAMINER

COLEMAN, ERIC

ART UNIT	PAPER NUMBER
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2183

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/821,893

Applicant(s)

BROWN ET AL.

Examiner

Eric Coleman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maher III (patent No. 6,381,242)(hereafter Maher '242).

3. Mahler '242 taught the invention substantially as claimed including a data processing ("DP") system comprising:

a) Context memory subsystem (342) configured to maintain a plurality of argument signature buffers, each of the plurality of argument signature buffers (366) being associated with a corresponding context and containing a corresponding argument (e.g., see col. 9, lines 57);

b) Pattern processing engine configured to dynamically modify an argument and generate a transmit command as a function of a context associated with the modifier argument (e.g., see col. 7, line 64-col. 8, line 41);

c) Output interface subsystem (120) configured to receive the transmit command, and transmit the modified argument based upon the transmit command to an external device (e.g., see col. 8, lines 2-59).

4. Maher '242 did not expressly detail (claims 1,8,15) that the argument signature buffers comprised registers. One ordinary skill however, would have been motivated to

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use registers for the argument signature buffers to take advantage of the access speed of registers to provide quick access to the data that was scanned to determine the contexts.

5. As to the further limitations of claim 15, Maher '242 taught internal function bus (126,374) (e.g., see figs. 2,3) and data buffer controller that stores configuration information into a portion of the context memory subsystem associated with the corresponding context (e.g., see col. 9, lines 6-57).

6. As per claims 2,9,16, Maher '242 taught the data of modified argument containing external device command, routing parameter and protocol data unit classification (e.g., see col. 5, line 58-col. 6, line 19).

7. As per claims 3,10,17, Maher taught the signatures of any arbitrary length and begin anywhere and cross boundaries of the packet (e.g., see col. 10, lines 47-67). Therefore one of ordinary skill would have been motivated to use a 64 bit argument which is within the range of length taught by Maher to take advantage of advancing technology with 64 or more bit wide buses.

8. As per claims 4,11,18 Maher taught transmitting portions of the protocol data unit and modified argument to the external device (e.g., see col. 7, line 64-col. 8, line 6). As per claims 5,12,19, Maher taught the external device comprised a routing switching processor (e.g., see fig. 1, and col. 4, lines 39).

9. As per claims 6,13,20, Maher taught modifying the argument based on the content of a protocol unit (e.g., see col. 5, lines 37-57).

10. As per claims 7,14,21, the pattern processing engine was configured to employ a sequence of operating instructions defined by functional programming language. Maher taught the processor comprising a general-purpose microprocessor or custom ASICs. e.g., see col. 2, lines 13-41). The use of these processors would required use of at least one functional language for programming the processors to perform the fast path operations.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Maher (patent No. 6,654,373) disclosed a content aware network (e.g., see abstract).

Marshall (patent No. 6,728,839) disclosed an attribute based memory pre-fetching technique (e.g., see abstract).

Wright (patent No. 6,442,669) disclosed an architecture for a process complex and an arrayed pipelined processing engine (e.g., see abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Coleman whose telephone number is (703) 305-9674. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan can be reached on (703) 305-9712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EC


ERIC COLEMAN
PRIMARY EXAMINER